

Historically a leader in the manufacture of traditional wood products such as lumber and plywood, the Montana wood products industry is now well-integrated with new and emerging wood markets in the sectors of energy, agriculture, biochemicals, sustainable building, and forest restoration.

We have also become a national leader in the development of *community-scale woody biomass energy projects*. Eight schools and one university campus have proven their success in heating with renewable woody biomass energy. Feasibility studies conducted in 2010 identified promising opportunities for existing sawmills and utilities to develop and expand combined heat and power generation with woody biomass to meet local and regional renewable energy demands. Woody biomass energy technologies and developments at varied scales are advancing in Montana – providing investment opportunities for energy developers, service providers, and energy system manufacturers.

## INNOVATION IN WOOD PRODUCTS INDUSTRY

The forest products industry in Montana is diversifying and growing their business with innovative products for markets both domestic and abroad



# YOU COULD BE HERE, BUILDING YOUR BUSINESS AND LIVING YOUR DREAM

- **BLUE MARBLE BIOMATERIALS, INC.** opened a biorefinery in Western Montana. Blue Marble's fermentation and extraction technologies will give a new high-value outlet for woody biomass: renewable and natural chemicals for the food, flavoring, fragrance and personal care industries. The company plans to replace petroleum-based chemicals with fully sustainable, zero carbon specialty chemicals. The biorefinery is expected to be operational and delivering product to customers in 2011.

- **MONTANA SUSTAINABLE SYSTEMS (MTS)** is introducing North America to the future of sustainable forestry, value added wood products, prefabricated production and high performance, energy efficient buildings.

Through the manufacturing of Cross Laminated Timber (CLT) Panels and Wood Fiber Insulation (WFI) Systems in the Flathead



Valley, the startup company, led by a group of Montana entrepreneurs, is seeking capital for growth to bring the most advanced wood-processing center in North America to Montana. Having completed the first of their kind CLT projects in North America, MTS will deliver new technology that makes the standing insect-killed trees a commercially viable material for manufacturing CLT & WFI and will focus international attention on Montana as a leader in sustainable forestry and manufacturing.

- **ALGAE AQUA-CULTURE, INC. (AACT)** partnered with the Montana Department of Environmental Quality to build its first commercial biorefinery in Columbia Falls, MT. The

AACT process utilizes sunlight, waste biomass, waste heat and waste gases (CO<sub>2</sub> and NO<sub>x</sub>) to grow algae that converts wood and plant waste into fuel gases, food crops and nitrogen-rich weed-free organic fertilizer.

AACT has partnered with Stoltze Land and Lumber Company to develop a model bio-processor that

incorporates mill and logging waste into a closed loop system that generates heat and electricity for the AACT system and industrial processes at the mill.

- **STORM WATER CONSTRUCTION, INC.** Started as a college research project, WTS was formed in 2003, manufacturing, distributing and installing erosion and sediment control wattles. Wattles are long, tubular rolls of fiber that are most commonly made from straw. In 2010, SWC began manufacturing excelsior wood fiber wattles using material shaved from beetle-killed pine trees, which is optimal material because of its low moisture content. Markets for wood fiber wattles include road, oil and gas development projects—offering a great alternative to straw wattles which are less desirable because of predation by livestock and other animals.



- **R&R CONNER, INC.** R&R is a company owned and operated by a 5th generation Montanan. It is expanding to bring value to beetle-killed trees and the wood-waste cut-offs generated from their family sawmill in the Bitterroot Valley. They have purchased pilot equipment to manufacture extruded logs and charcoals used for energy for both domestic and export markets, and are seeking capital to expand their operation. The extruded logs are extremely dense and burn hotter, longer, and cleaner than traditional firewood and they are 100% wood biomass with no chemical additives. By extruding wood fiber into log form, R&R is adding value to biomass, by condensing energy and allowing it to be transported further for less cost. This allows Montana's natural resources to be exported into international markets while R&R creates demand for these products in the US.

- **PORTERBILT COMPANY** has been in business in the Bitterroot Valley for over 40 years producing post and poles and log home railings. Looking to diversify with more value-added manufacturing, the company began building kiosks, trusses and I-beams out of small-diameter logs. Porter's small diameter roundwood structures included a demo for the 2002 Winter Olympics, the public library in Darby and a 120 foot cable suspension bridge in Missoula.

GOVERNOR'S OFFICE OF ECONOMIC DEVELOPMENT

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